



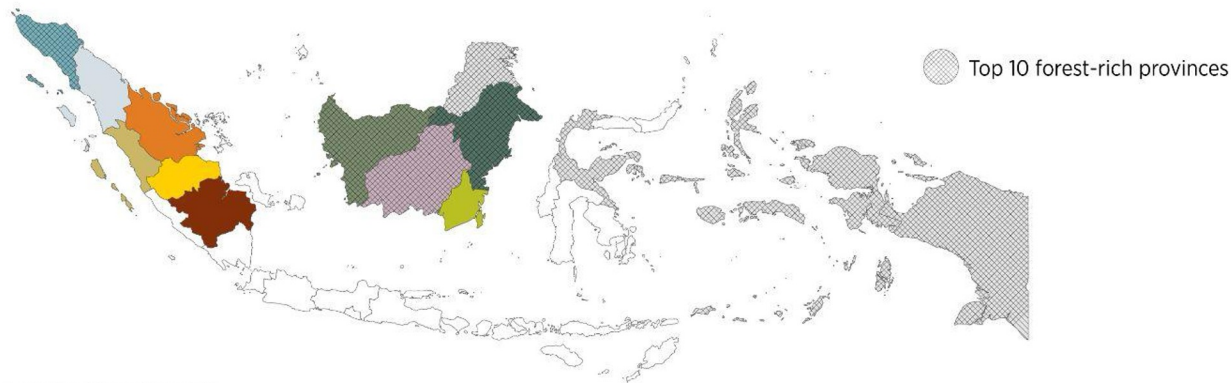
Oil Palm and Deforestation in Indonesia

MARCH, 2022

Oil Palm Cover Dynamics

OIL PALM COVER IN INDONESIA

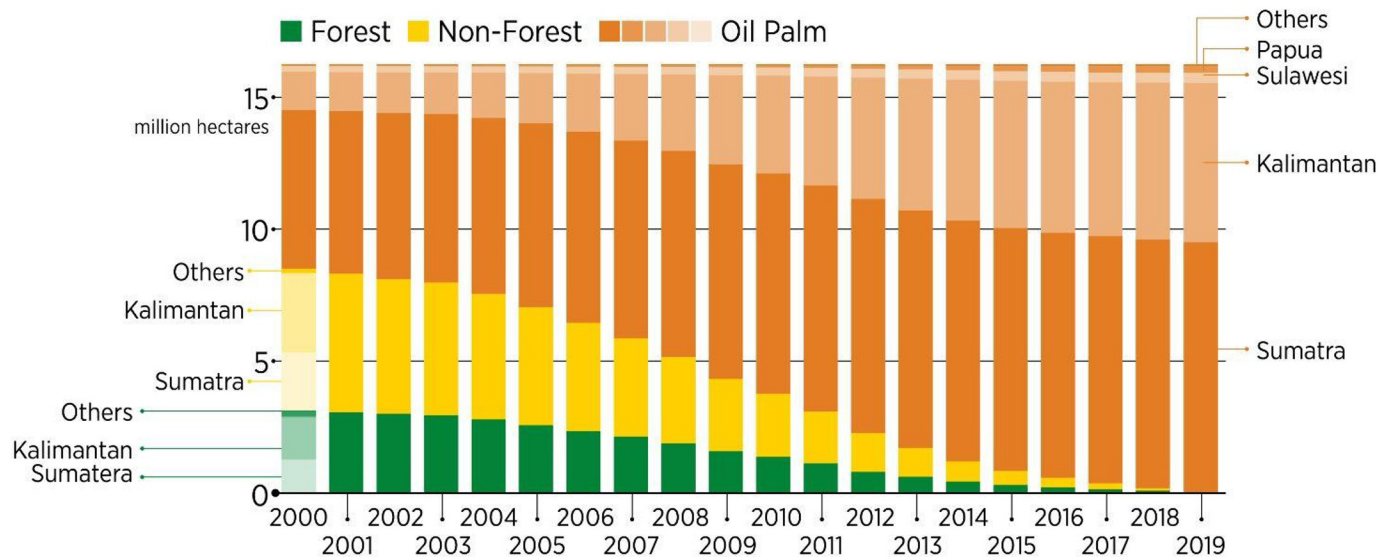
In 2020, oil palm cover in Indonesia are 16.5 million hectares (Auriga, 2021). Of 34 provinces in Indonesia, oil palm exist in 26 provinces. The top 10 oil palm provinces cover 88% of the country's oil palm. **However, those aren't cover all the country's forest-rich provinces.**



Top 10 oil palm provinces Indonesia (hectares)



2000-2019 OIL PALM LAND COVER DYNAMICS



Only 19% of 2019 Indonesia's palm oil developed in 2000 natural forest cover.

LAND COVER	YEAR																			
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Natural Forest		59,219	117,431	186,997	276,932	404,773	586,111	771,838	1,094,265	1,343,117	1,555,184	1,854,037	2,112,993	2,320,183	2,547,322	2,764,469	2,919,602	2,975,153	3,038,670	3,094,882
Non-Forest		96,227	221,813	360,049	529,816	762,903	1,091,893	1,482,141	1,958,833	2,383,652	2,741,821	3,278,437	3,725,656	4,107,337	4,470,577	4,761,852	5,036,354	5,109,697	5,249,236	5,382,368
Palm Oil	16,236,685	16,081,239	15,897,441	15,689,638	15,429,936	15,069,008	14,558,680	13,982,705	13,183,587	12,509,915	11,939,680	11,104,211	10,398,036	9,809,164	9,218,786	8,710,363	8,280,729	8,151,834	7,948,779	7,759,434

Source: Auriga and The Treemap

Deforestation for Oil Palm

DIRECT AND INDIRECT DEFORESTATION FOR OIL PALM

Year						Category
2019	2000	
OP	OP	OP	OP	OP	OP	Non-deforestation
OP	OP	OP	OP	OP	NF	Non-deforestation
OP	OP	OP	OP	OP	F	Direct deforestation
OP	OP	OP	OP	NF	F	Direct deforestation
OP	OP	OP	NF	NF	F	Direct deforestation
OP	OP	NF	NF	NF	F	Indirect deforestation

OP: Oil palm NF: Non-forest F: Forest

- **Natural forest in 2000 that had become oil palm in 2019 was categorized as direct deforestation for oil palm**

Direct deforestation for oil palm is natural forest that over a maximum time span of three years changed to become oil palm cover. The area of this category was 2,935,906 hectares.

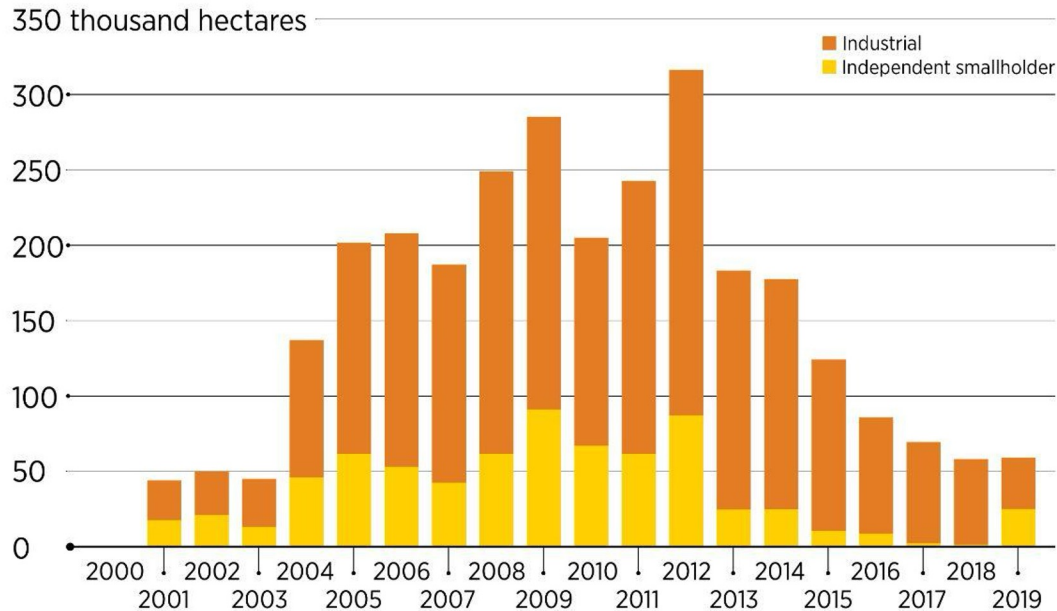
- **Natural forest in 2000 that had become oil palm in 2019 was categorized as indirect deforestation for oil palm**

Indirect deforestation for oil palm is natural forest that more than three years later changed to become oil palm cover. The area of this category was 158,977 hectares.

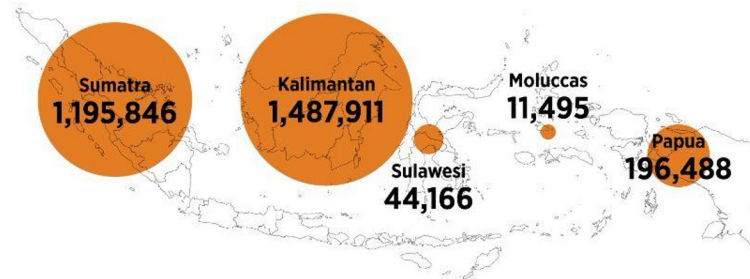
- **Oil palm in 2019 not resulting from deforestation**

Cover that was originally oil palm or non-natural forest cover in 2000. The area of this category was 13,141,802 hectares.

DIRECT DEFORESTATION FOR OIL PALM



Direct Deforestation for Oil Palm Per Region



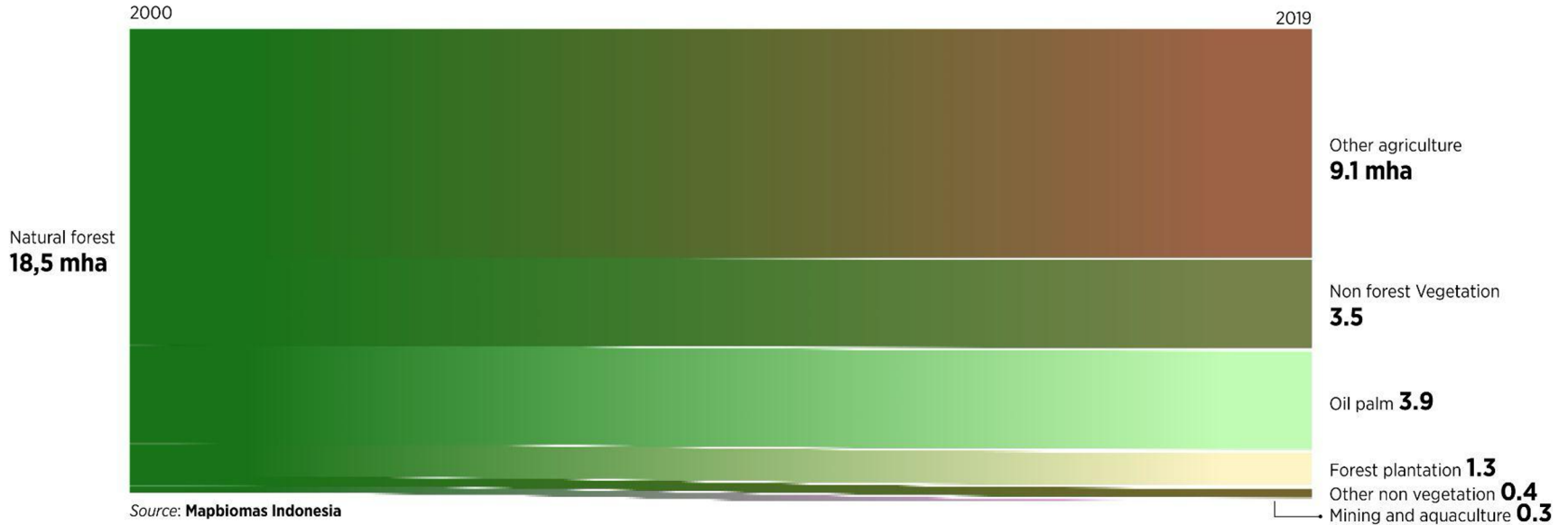
- The highest levels of direct deforestation for oil palm occurred in Kalimantan (1,487,911 hectares) and Sumatra (1,195,846 hectares). Based on MoEF data, the highest levels of national deforestation also occurred in these two regions.
- Oil palm deforestation in Papua had an area of 196,488 hectares, making it the third highest oil palm deforestation region after Kalimantan and Sumatra.

Deforestation in Indonesia

TRANSITION OF LAND COVER IN DEFORESTATION AREA

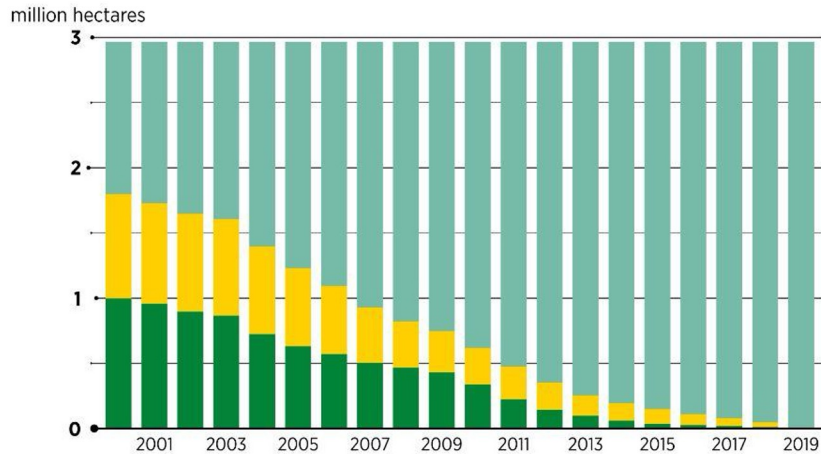
Agricultural land-used purposed are responsible for most deforestation in Indonesia

2000 to 2019 land cover transition of deforestation area

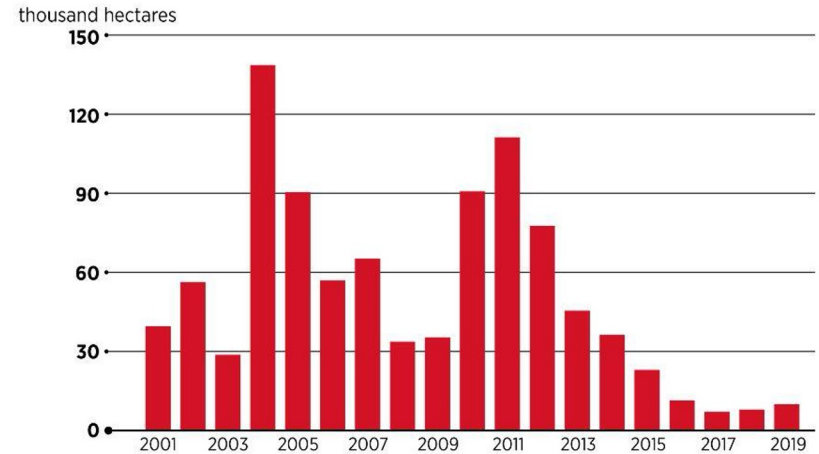


TIMBER PLANTATION'S SIGNIFICANT ROLE IN DEFORESTATION

Land cover dynamics of timber plantation 2000-2019 in Indonesia



Deforestation for timber plantation expansion



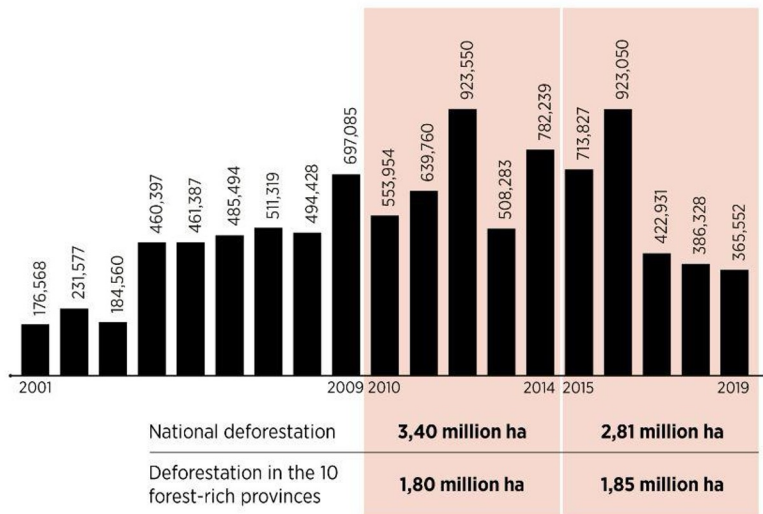
LAND COVER	YEAR																			
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Natural Forest	0	10,001	17,968	25,11	36,73	60,222	97,495	143,675	223,53	338,066	430,384	467,202	503,521	570,7	630,105	723,912	866,079	896,339	956,7	998,303
Non Forest	0	36,498	59,641	83,713	110,926	131,481	155,209	208,719	252,087	278,335	315,829	352,541	426,063	521,267	598,747	674,332	740,337	751,222	771,843	800,214
Timber Plantation	2,966,181	2,919,683	2,888,573	2,857,358	2,818,525	2,774,479	2,713,478	2,613,787	2,490,565	2,349,780	2,219,968	2,146,438	2,036,598	1,874,214	1,737,330	1,567,938	1,359,766	1,318,621	1,237,639	1,167,665

RATES OF FOREST COVER LOSS AND CONVERSION TO OIL PALM

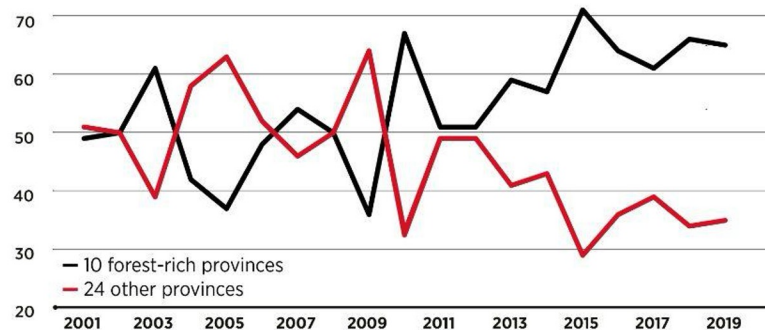
Natural forest loss from 2015-2019 reached a total of 2.81 million hectares. Forest-rich provinces accounted for 1.85 million hectares of deforestation, or 65% of total natural forest loss in Indonesia.

Outside the list of forest-rich provinces, in Riau and Jambi for instance, deforestation rates for 2015-2019 fell sharply compared to the previous five-year period.

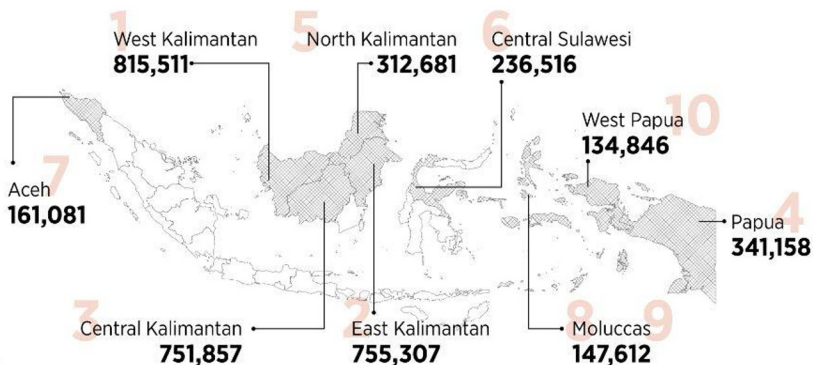
Deforestation rate in Indonesia 2001-2019



Forest-rich provinces' contributions to deforestation, 2001-2019



Deforestation in 10 forest-rich provinces in the 2001-2019



Next Deforestation?

THE CHALLENGE

• **Transparency**

• **Transforming Asia Market**

• **Asia's G to G synergy for the better governance**

RATES OF FOREST COVER LOSS AND CONVERSION TO OIL PALM

1. Deforestation in existing concessions

Currently there are 8,8 million hectares of natural forest cover inside concessions:

Natural forest cover in existing permit area



3. Landlordless area

Deforestation in “abandoned” area are a typical deforestation in Indonesia. As an example, in January 2022 the government revoked thousands of forestry, mining, and palm oil permit. However, 1.1 million hectares of them are natural forest cover outside forestry estate.

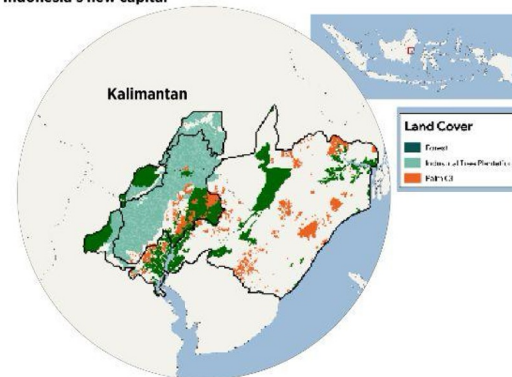


Province	Permits revoked (ha)	Existing forest cover (ha)
Papua	629,310	542,064
West Papua	423,473	361,483
Central Kalimantan	403,294	53,312
Gorontalo	54,854	47,241
Other (14)	558,621	141,606

2. Government projects

- Article 84 of Government Regulation No. 23/2021 on Forestry Administration allows the release of protection forest and conservation forest estates for ‘Strategic National Projects’, such as new capital, economic zones, development projects, etc.

Existing landcover in proposed Indonesia’s new capital



- Article 10 of Government Regulation No. 43/2021 on Spatial Planning allows ‘Strategic National Projects’ to continue even when there are spatial planning incompatibilities.
- Planning for Strategic National Projects tends to be weak with little public participation. There have been many reports of natural forest deforestation linked to Strategic National Projects, such as food estates, road development, 10 new Balis, special economic estates, etc.

RECOMMENDATIONS

• **Protect all remaining natural forest cover**

• **Companies' NDPE commitment**

• **Intensification of existing plantation land**

• **Smallholder oil palm-based downstreaming**

• **Industrialization of national palm oil**

THANK YOU
